

## REMARKS

Claims 1-21 are pending in the application. No claims are presently allowed.

Paragraph 0019 is amended to correct “rhenium” to “rhodium.” This was an obvious error, as it is known in the art that the platinum group metals are platinum, palladium, ruthenium, iridium, osmium, and rhodium. This is the definition used by the US Geological Survey (see <http://minerals.usgs.gov/minerals/pubs/commodity/platinum/>, attached) and the International Platinum Association (<http://www.platinuminfo.net/pgm.html>, attached). Also attached is the first page of the first issue of *Platinum Metals Review* (1957) (<http://www.platinummetalsreview.com/pdf/pmr-v1-i1-002-035.pdf>) which includes the same list on lines 38-39.

Claim 1 is amended to clarify that the “-” in the formula refers to a mixture of the two materials. Support for this amendment is found in paragraph 0023

Claim 6 has been amended to change “platinum group alloys” to “platinum group metal alloys” for clarity.

Claim 11 is amended to clarify that the doped transition metal is a second transition metal. Note the second transition metal may be the same or different element as  $M^2$ .

No new matter has been added.

## Application Data Sheet

An ADS is attached to correct the spelling of an inventor’s name. Peter J Bouwman was misspelled on the declaration filed 09/26/2003 as “Peter J Bouwan.” Correction of the USPTO records is requested.

## Claim Rejections – 35 U.S.C. § 112

Claims 1-21 have been rejected under 35 U.S.C. § 112, second paragraph as being allegedly indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention.

Claim 1 recites “platinum group metals.” This term is defined in paragraph 0019 as platinum, palladium, ruthenium, iridium, osmium, and rhodium.

The dash in the formula in claim 1 means that  $M^1$  is metallic and  $M^2$  is part of the phosphate. However, the dash has been removed for clarity.

Claim 1 recites “x and y are positive numbers.” The Examiner questioned whether x or y could be 0. The attached definition of “positive” from *McGraw-Hill Dictionary of Scientific and Technical Terms* (McGraw-Hill, 3<sup>rd</sup> Ed. 1984) states that it is “Having value greater than zero.” Thus, x and y cannot be zero. Similarly, negative means less than zero. Thus the nonnegative value of z may be zero.

Claim 3 recites that  $M^1$  is platinum. The Examiner stated that this does not further limit claim 1. However, claim 1 recites that  $M^1$  is a platinum group metal or alloy thereof. As stated above, there are six platinum group metals, including platinum. Claim 3 limits claim 1 by excluding five of the metals as well as alloys.

Claim 5 recites that  $M^1$  is palladium. The Examiner stated that  $M^1$  cannot be palladium because claim 1 recites that  $M^1$  is a platinum metal or alloy. As stated above, platinum group metals include palladium.

Claim 6 recited “platinum group alloys.” This has been amended to “platinum group metal alloys.”

Claim 10 recites “about” in conjunction with ranges. Under MPEP 2173.05(b) paragraph A and *Ex parte Eastwood*, 163 U.S.P.Q 216 (Bd. App. 1968), this is permissible.

Claim 11 recites that the catalyst is doped with a transition metal. The Examiner stated that this does not further limit claim 1, because claim 1 recites that  $M^2$  is a transition metal. The claim has been clarified to recite that the doped transition metal is a second transition metal.

Claim 14 (15 and 16 dependent thereon) recites that the phosphate catalyst is combined with a conductive support. The Examiner stated that it is unclear if the phosphate catalyst is formed on the conductive support or not. The scope of this product claim includes all combinations of the catalyst and support, regardless of whether the catalyst is synthesized on the surface of the support, or mixed with the support after its synthesis. It is not a product-by-process claim. There is no lack of clarity as to the scope. The Examiner’s statement of “If it was a conductive material than it could be combined with” (office action of 11/13/06, page 3, lines 6-7) is not understood.

#### Claim Rejections – 35 U.S.C. § 102

Claims 1-4, 6-16, and 18-20 have been rejected under 35 U.S.C § 102(a) as allegedly anticipated by Swider-Lyons et al. (“Low-platinum hydrous metal oxides for PEMFC

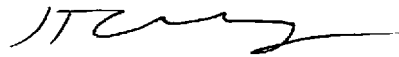
cathodes”).

The reference is Applicants’ own work and may be removed as a reference under MPEP 716.10 by a declaration under 37 C.F.R. § 1.132 stating that the subject matter of the reference was conceived or invented solely by Applicants. Such a declaration is attached to overcome the rejection.

In view of the foregoing, it is submitted that the application is now in condition for allowance.

In the event that a fee is required, please charge the fee to Deposit Account No. 50-0281, and in the event that there is a credit due, please credit Deposit Account No. 50-0281.

Respectfully submitted,



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